

# ZytoLight® SPEC NRG1/CD74 TriCheck™ Probe



## Background

The ZytoLight® SPEC NRG1/CD74 TriCheck™ Probe (PL152) is intended to be used for the qualitative detection of human NRG1 rearrangements with and without participation of the human CD74 gene in formalin-fixed, paraffin-embedded specimens by fluorescence *in situ* hybridization (FISH). The probe is intended to be used in combination with the ZytoLight® FISH-Tissue Implementation Kit (Prod. No. Z-2028-5/-20).

The product is intended for professional use only. All tests using the product should be performed in a certified, licensed anatomic pathology laboratory under the supervision of a pathologist/human geneticist by qualified personnel. The probe is intended to be used as an aid to the differential diagnosis of various cancers and therapeutic measures should not be initiated based on the test result alone.

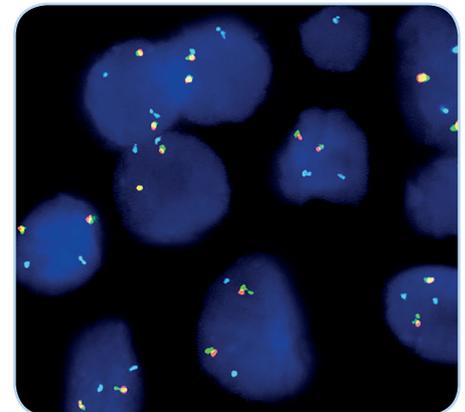
## Probe Description

The ZytoLight® SPEC NRG1/CD74 TriCheck™ Probe is composed of:

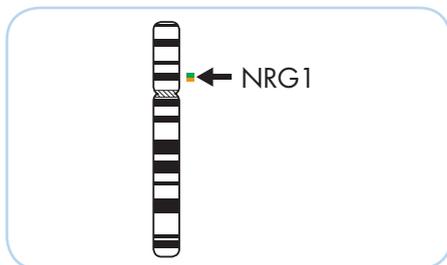
- ZyGreen (excitation 503 nm/emission 528 nm) labeled polynucleotides (~10.0 ng/μl), which target sequences mapping in 8p12\*\* (chr8:31,730,448-32,433,429) distal to the NRG1 breakpoint region.
- ZyOrange (excitation 547 nm/emission 572 nm) labeled polynucleotides (~4.5 ng/μl), which target sequences mapping in 8p12\*\* (chr8:32,644,505-32,985,279) proximal to the NRG1 breakpoint region.
- ZyBlue (excitation 418 nm/emission 467 nm) labeled polynucleotides (~37.0 ng/μl), which target sequences mapping in 5q32-q33.1\*\* (chr5:149,274,320-150,285,722) harboring the CD74 gene.
- Formamide based hybridization buffer

## Results

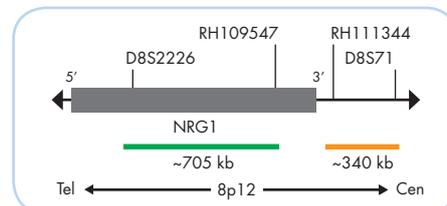
In an interphase nucleus lacking a rearrangement involving the 8p12 and 5q32-q33.1 bands, two orange/green fusion signals and two blue signals are expected. A CD74-NRG1 fusion is indicated by one separate green signal, one separate orange signal, and an additional blue signal which co-localizes with the separated orange signal. An NRG1 rearrangement not involving CD74 is indicated by separated orange and green signals without an additional blue signal.



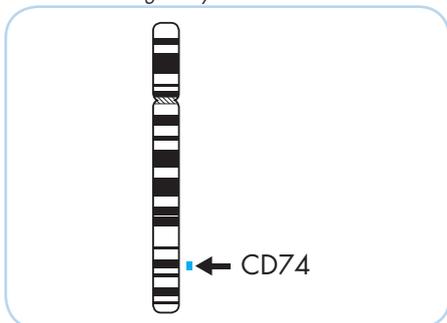
SPEC NRG1/CD74 TriCheck™ Probe hybridized to normal interphase cells as indicated by two orange/green fusion signals and two blue signals per nucleus.



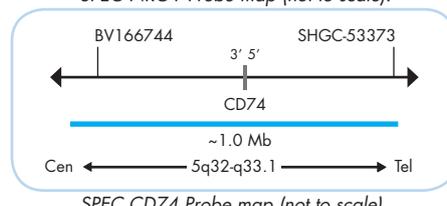
Ideogram of chromosome 8 indicating the hybridization locations.



SPEC NRG1 Probe map (not to scale).



Ideogram of chromosome 5 indicating the hybridization locations.



SPEC CD74 Probe map (not to scale).

Prod. No.	Product	Label	Tests* (Volume)
Z-2194-200	ZytoLight SPEC NRG1/CD74 TriCheck Probe		20 (200 μl)
<b>Related Products</b>			
Z-2028-20	ZytoLight FISH-Tissue Implementation Kit		20
<small>Incl. Heat Pretreatment Solution Citric, 500 ml; Pepsin Solution, 4 ml; Wash Buffer SSC, 560 ml; 25x Wash Buffer A, 100 ml; DAPI/DuraTest-Solution, 0.8 ml</small>			

\* Using 10 μl probe solution per test. labeled products are only available in certain countries. All other countries research use only! Please contact your local dealer for more information.

\*\*According to Human Genome Assembly GRCh37/hg19